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09/965,377	09/27/2001	Matthew S. Gebhard	A01065	6406
7590 11/04/2003			EXAMINER	
Stephen E. Johnson Rohm and Haas Company 100 Independence Mall West Philadelphia, PA 19106			NAFF, DAVID M	
			ART UNIT	PAPER NUMBER
			1651	

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/965,377

Applicant(s)

GEBHARD ET AL.

Examiner

David M. Naff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 9-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

The amendment of 8/22/03 amended the specification and claims 1-8.

Claims 9-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being  
5 no allowable generic or linking claim. Election was made without traverse in Paper No. 5 of 1/16/03.

Claims examined on the merits are 1-8.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10 ***Claim Rejections - 35 USC § 112***

Claims 4, 7 and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not  
15 described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

When a polymer film is formed as required by claim 1 wherein the non-film forming material is particulate and the film forming material  
20 comprises polymer particles small enough to fit in a matrix of interstices formed by non-film forming particles, the specification fails to contain support for using hollow polymer particles, core-shell polymers, polymer encapsulants, large dimension emulsion polymers or inorganic compositions as in claim 4, and multi-stage  
25 latex polymers as required by claims 7 and 8.

According to the specification, the invention involves three aspects (page 3, lines 23-30). The first aspect is a film comprising a blend containing a non-film forming material and a film forming polymer as described in the specification at page 3, lines 23-27 and  
5 page 4, lines 4-9, and is the embodiment of claim 1. The second aspect is a film comprising a water-borne latex dispersion of multi-stage polymer containing a non-film forming material and a film forming material as described in the specification at page 3, lines 27-29 and page 4, lines 10-17, and is the multi-stage latex polymers  
10 of claims 7 and 8. The third aspect involves using large dimension emulsion polymer particles made of non-film forming materials as described in the specification at page 3, lines 29-30, and page 12, lines 20-31.

There is no description in the specification of combining the  
15 first aspect with the second or third aspect of the invention as now required by claims 4, 7 and 8. According to the specification, the three different aspects are different embodiments performed separately. There is no reason to combine the first aspect of blending particles of non-film forming material with latex particles  
20 of film forming polymer with the second aspect of forming a multi-stage core-shell latex polymer since both aspects contain the non-film forming material and the film forming polymer with the film forming polymer being used in the same amount in both aspects as described in the specification at page 4, lines 4-17. The specification contains  
25 no enabling description of how to combine the different aspects and

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provides no benefit or reason as to why one would want to combine the first aspect with the second aspect. Additionally, one would not combine the first aspect with the third aspect since the third aspect produces large dimension polymer particles which are a larger size  
5 that particles of a latex. The present specification discloses encountering and overcoming a problem only when producing a film from water-borne latex polymers (page 3, lines 10-18). There is no description of encountering and overcoming a problem when the film is not being produced from a latex. While the specification briefly  
10 mentions inorganic compositions (page 5, lines 30-32) as in claim 4, there is no description of how to produce a latex from an inorganic composition, and the problem encountered is when using a latex to form a film.

***Claim Rejections - 35 USC § 112***

15 Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the embodiment of claim 1 when the particulate non-film forming material is a water-borne latex dispersion of polymer particles formed of a non-film forming polymer and the film forming polymer comprising polymer  
20 particles is a water-borne latex dispersion of polymer particles formed of a film forming polymer, and the interstices in which the film forming polymer particles are small enough to fit are between the particles of the non-film forming polymer of the water-borne latex dispersion, does not reasonably provide enablement for other  
25 embodiments within the scope of the claims. The specification does

not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The specification fails to describe how to make a film as claimed  
5 without blending latexes as described in the specification. There is no description of interstices as claimed other than being between particles contained by a latex. The present specification discloses that the present invention overcomes a long recognized problem of making a permanently porous film from water-borne latex dispersion  
10 polymers (page 3, lines 10-18). This problem will not be encountered when not blending latex polymers as encompassed by the present claims. As noted above, the specification fails to describe combining the second or third aspect of the invention with the first aspect, and there is no description of how to form a latex from an inorganic  
15 composition. The specification is enabling for only a latex containing particles formed of a polymer.

***Claim Rejections - 35 USC § 112***

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly  
20 claim the subject matter which applicant regards as the invention.

Claim 1 and claims dependent thereon are confusing and unclear by claim 1 being unclear in not having antecedent basis for a matrix as required in line 3, and being unclear as to whether the matrix is part of the film or has some other relationship to the film. The claim is  
25 unclear how the film can contain a matrix formed by the particles since how the particles form a matrix is not specified.

or channels throughout the film" in the last two lines. This should be required in the claim preamble in line 1 of the claim by inserting --- non-friable - before "polymer", and after "film" inserting --- having a network of pores or channels throughout ---.

5 In line 2 of claim 7, --- and --- should be inserted after "material" to be clear.

In claim 4, line 2 and claim 8, line 3, --- formed of a material --- should be inserted before "selected" since all of the materials recited are not particulate.

10 The claims are free of the prior art.

The following amendments would result in all claims being allowable.

Rewrite claim 1 as new claim 17 as follows ---

15 A porous non-friable polymer film having a network of pores or channels throughout comprising a blend of (a) at least one water-borne latex dispersion of polymer particles formed of a non-film forming polymer, and (b) at least one water-borne latex dispersion of polymer particles formed of a film forming polymer, wherein the polymer particles of the water-borne latex dispersion of (b) have diameters  
20 small enough to fit into interstices formed between the polymer particles of the water-borne latex dispersion of (a), and the film forming polymer is present in the blend in an amount of from between 5 and 35%, based on the total volume of non-film forming and film forming polymer solids. ---.

25 Cancel claim 2.

Claim 3, make dependent on claim 17, line 2, cancel "particulate", and line 3, cancel "material is a polymer having" and insert --- polymer has ---.

Claim 4, make dependent on claim 17, and cancel all of the claim  
5 after line 1, and insert --- non-film forming polymer is an acrylic polymer. ---.

Claim 5, make dependent on claim 17, cancel all of the claim  
after line 1 and insert --- the polymer particles formed of the film  
forming polymer have diameters 20% or less in size than the polymer  
10 particles formed of the non-film forming polymer. ---.

Claim 6, make dependent on claim 17.

Cancel claims 7-16.

Applicant's amendment necessitated the new ground(s) of rejection  
presented in this Office action. Accordingly, **THIS ACTION IS MADE**  
15 **FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension  
of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is  
set to expire THREE MONTHS from the mailing date of this action. In  
20 the event a first reply is filed within TWO MONTHS of the mailing date  
of this final action and the advisory action is not mailed until after  
the end of the THREE-MONTH shortened statutory period, then the  
shortened statutory period will expire on the date the advisory action  
is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be  
25 calculated from the mailing date of the advisory action. In no event,  
however, will the statutory period for reply expire later than SIX  
MONTHS from the date of this final action.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Naff whose telephone number is 703-308-0520. The examiner can normally be reached on Monday-Friday 9:30-6:00.

5 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on 703-308-4743. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

10 Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

15

  
David M. Naff  
Primary Examiner  
Art Unit 1651

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10/31/03  
DMN